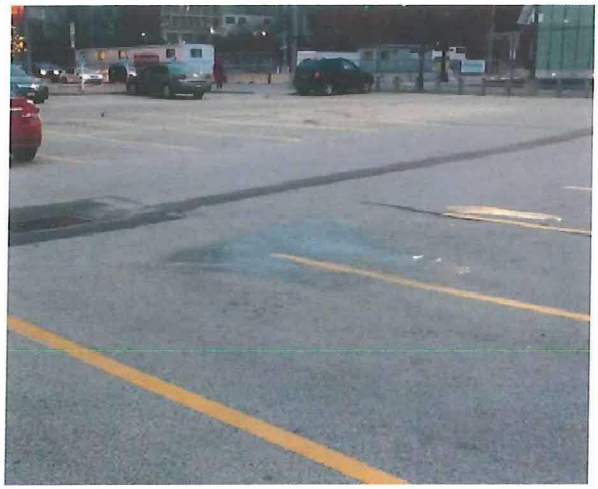
Hidden Hazards - Black Ice



1. **Visibility**. Black ice by its very nature is often difficult to spot, especially in low light conditions. It is a thin, transparent layer of ice that can blend in with the underlying pavement. Black ice is most prevalent during low light conditions (evenings and early morning hours, shaded areas), further reducing detection by unsuspecting pedestrians. Very serious injuries, including head trauma and back injuries, are possible when feet slip out on a barely-visible patch of black ice.
2. **Warm temperatures.** When air temperatures are above freezing during late winter and early spring, many people assume that it is too warm for ice to form on walkways. But pavement temperature, not air temperature, determines when ice will form. Frozen ground helps keep the pavement temperature below the air temperature. Don't be surprised on a 40° morning when a sidewalk that looks wet is actually icy. Unfortunately, weather forecasts don't typically mention ground or pavement temperatures.
3. **Traction.** Most people think that all ice is equal in terms of slipperiness. But the coefficient of friction for ice decreases as temperatures rise close to or above the freezing point, which can result in a wet layer on the surface of the smooth black ice. Under those conditions, it is nearly impossible to walk safely over the ice unless you have traction cleats on your footwear or have been trained to safely "ice walk" (upright posture, head back and short, flat-footed steps).
4. **Easily hidden.** Blowing snow or light snowfall overnight often hides the areas where black ice may be lurking, especially when a light snow shower doesn't trigger a snow removal response.
5. **No obvious source.** Snow melt during sunny afternoons is an obvious source of water that can turn into ice. But what if there no snow pack or signs of melting? Building heat lost through the roof can melt snow on the rooftop, which then drips onto cold pavement surfaces below, forming an unexpected ice patch.

Best Practice

Follow these simple steps during thaw/refreeze conditions:

- Monitor pavement temperatures and inspect walkways before staff and customers arrive.
- Treat ice patches daily with a mixture of coarse sand and ice-melt as needed (90/10 ratio).
- Place warning cones at locations prone to black ice formation.
- Send reminders to staff to be extra vigilant during thaw/refreeze conditions.